



Serial No. 09/316515

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	David B. Krig et al.	Examiner:	George Robert Evanisko
Serial No.:	09/316,515	Group Art Unit:	3762
Filed:	May 21, 1999	Docket:	279.112US1
Title:	METHOD AND APPARATUS FOR TREATING IRREGULAR VENTRICULAR CONTRACTIONS SUCH AS DURING ATRIAL ARRHYTHMIA		

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

RECEIVED

OCT 20 2003

TECHNOLOGY CENTER R3700

Respectfully submitted,

DAVID B. KRIG ET AL.

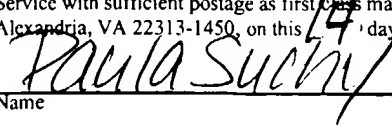
By their Representatives,

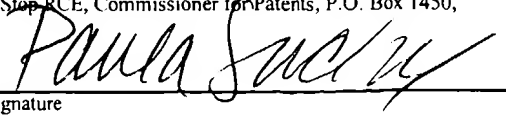
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
612-373-6951

Date Oct. 10, 2003

By 
Suneel Arora
Reg. No. 42,267

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Attn-Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14 day of October, 2003.


Name


Signature



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	09/316515
Filing Date	May 21, 1999
First Named Inventor	Krig, David
Group Art Unit	3762
Examiner Name	Evanisko, George

RECEIVED

OCT 20 2003

TECHNOLOGY CENTER R3700

Sheet 1 of 5

Attorney Docket No: 279.112US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-4,208,008	06/17/1980	Smith, B. L.	371	15	11/06/1978
	US-4,432,360	02/21/1984	Mumford, V. E., et al.	128	419 PG	07/06/1981
	US-4,562,841	01/07/1986	Brockway, B. P., et al.	128	419 PG	08/05/1982
	US-4,596,255	06/24/1986	Snell, et al.	128	697	02/15/1985
	US-4,791,936	12/20/1988	Snell, et al.	128	697	06/20/1986
	US-4,809,697	03/07/1989	Causey III, J. D., et al.	128	419 PT	10/14/1987
	US-4,869,252	09/26/1989	Gilli, N. L.	128	419 PG	01/11/1988
	US-4,890,617	01/02/1990	Markowitz, H. T., et al.	128	419 PG	11/25/1987
	US-4,940,054	07/10/1990	Grevis, R., et al.	128	419 PG	04/29/1988
	US-4,941,471	07/17/1990	Mehra, Rahul	128	419	09/07/1988
	US-4,944,298	07/31/1990	Sholder,	128	419 PG	05/23/1989
	US-4,944,928	07/31/1990	Grill, M., et al.	423	161	06/23/1988
	US-4,972,834	11/27/1990	Begemann, Malcolm, et al.	128	419	09/30/1988
	US-5,012,814	05/07/1991	Mills, G. N., et al.	128	691	11/09/1989
	US-5,107,850	04/28/1992	Olive, A. L.	128	705	11/02/1990
	US-5,144,949	09/08/1992	Olson, W. H.	128	419 PG	03/15/1991
	US-5,156,147	10/20/1992	Warren, J. A., et al.	128	419.0 PG	02/05/1991
	US-5,179,949	01/19/1993	Chirife, R.	128	419 PG	12/07/1990
	US-5,184,614	02/09/1993	Collins, et al.	128	419 PG	10/19/1990
	US-5,193,535	03/16/1993	Bardy, G. H., et al.	128	419 D	08/27/1991
	US-5,193,550	03/16/1993	Duffin,	129	697	11/30/1990
	US-5,197,467	03/30/1993	Steinhaus, B. M., et al.	128	419 PG	06/22/1992
	US-5,292,341	03/08/1994	Snell, J. D.	607	30	03/02/1992
	US-5,311,874	05/17/1994	Baumann, L. S., et al.	128	705	05/18/1992
	US-5,360,437	11/01/1994	Thompson, D. L.	607	30	11/08/1993
	US-5,372,607	12/13/1994	Stone, et al.	607	30	06/23/1993
	US-5,379,776	01/10/1995	Murphy, A. J., et al.	128	705	12/01/1993
	US-5,395,373	03/07/1995	Ayers, G. M.	607	8	01/07/1993
	US-5,431,691	07/11/1995	Snell, J. D., et al.	607	27	03/02/1992
	US-5,437,285	08/01/1995	Verrier, et al.	128	702	11/30/1993
	US-5,474,574	12/12/1995	Payne, E. G., et al.	607	7	06/24/1992
	US-5,522,850	06/04/1996	Yomtov, B. M., et al.	607	5	06/23/1994
	US-5,523,942	06/04/1996	Tyler, Max C., et al.	364	401	03/31/1994
	US-5,540,232	07/30/1996	Laney, B., et al.	128	697	04/19/1994

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 051-0031
US Patent & Trademark Office U.S. DEPARTMENT OF COMMERCE

Complete if Known

Application Number	09/316515
Filing Date	May 21, 1999
First Named Inventor	Krig, David
Group Art Unit	3762
Examiner Name	Evanisko, George

RECEIVED

OCT 20 2003

TECHNOLOGY CENTER R370C

Sheet 2 of 5

Attorney Docket No: 279.112US1

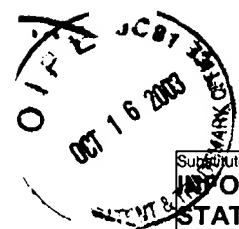
US-5,545,182	08/13/1996	Stotts, L. J., et al.	607	5	09/21/1994
US-5,549,649	08/27/1996	Florio, J. J., et al.	607	15	06/10/1994
US-5,549,654	08/27/1996	Powell, R. M.	607	32	04/15/1994
US-5,554,174	09/10/1996	Causey III, J. D.	607	5	10/18/1995
US-5,560,370	10/01/1996	Verrier, et al.	128	705	05/26/1995
US-5,605,159	02/25/1997	Smith, et al.	128	702	02/16/1996
US-5,607,460	03/04/1997	Kroll, M. W., et al.	607	30	03/15/1996
US-5,613,495	03/25/1997	Mills, G. N., et al.	128	696	07/06/1995
US-5,620,471	04/15/1997	Duncan,	607	14	06/16/1995
US-5,620,473	04/15/1997	Poore, J. W.	607	27	03/08/1995
US-5,622,178	04/22/1997	Gilham, J. J.	128	696	05/04/1994
US-5,674,250	10/07/1997	de Coriolis, P. E., et al.	607	7	04/29/1996
US-5,674,251	10/07/1997	Combs, W. J., et al.	607	4	03/26/1996
US-5,676,153	10/14/1997	Smith, et al.	128	702	10/25/1996
US-5,683,429	11/04/1997	Mehra, R.	602	14	04/30/1996
US-5,716,382	02/10/1998	Snell, J. D.	607	30	08/02/1995
US-5,716,384	02/10/1998	Snell,	607	30	07/08/1996
US-5,718,235	02/17/1998	Golosarsky, Boris , et al.	128	708	07/30/1996
US-5,724,985	03/10/1998	Snell, J. D., et al.	128	697	08/02/1995
US-5,725,559	03/10/1998	Alt, E. , et al.	607	5	05/16/1996
US-5,741,304	04/21/1998	Patwardhan, et al.	607	5	10/17/1995
US-5,749,901	05/12/1998	Bush, et al.	607	5	05/07/1996
US-5,755,739	05/26/1998	Sun, W. , et al.	607	14	12/04/1996
US-5,759,196	06/02/1998	Hess, M. F., et al.	607	14	09/29/1995
US-5,814,081	09/29/1998	Ayers, et al.	607	5	04/07/1997
US-5,840,079	11/24/1998	Warman, E. N., et al.	607	4	03/27/1997
US-5,842,997	12/01/1998	Verrier, R. L., et al.	600	518	04/30/1997
US-5,865,838	02/02/1999	Obel, M. , et al.	607	5	09/18/1997
US-5,891,178	04/06/1999	Mann, B. M., et al.	607	27	05/13/1997
US-5,902,324	05/11/1999	Thompson, D. L., et al.	607	9	04/28/1998
US-5,968,079	10/19/1999	Warman, et al.	607	5	03/18/1998
US-5,974,341	10/26/1999	Er, et al.	607	31	12/22/1997
US-5,987,354	11/16/1999	Cooper, R. A., et al.	607	5	10/14/1997
US-5,991,657	11/23/1999	Kim, J.	607	5	08/06/1998
US-5,991,662	11/23/1999	Kim, et al.	607	27	06/23/1998
US-6,041,251	03/21/2000	Kim, J. , et al.	600	518	07/01/1998
US-6,047,210	04/04/2000	Kim, J. , et al.	607	4	09/03/1998
US-6,052,617	04/18/2000	Kim, J.	600	518	07/01/1998
US-6,081,746	06/27/2000	Pendekanti, R. , et al.	607	5	08/07/1998
US-6,081,748	06/27/2000	Struble, C. L., et al.	607	9	04/22/1999

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number 09/316515
Filing Date May 21, 1999
First Named Inventor Krig, David
Group Art Unit 3762
Examiner Name Evanisko, George

RECEIVED

OCT 20 2003

TECHNOLOGY CENTER 93700

Sheet 3 of 5

Attorney Docket No: 279.112US1

	US-6,085,116	07/04/2000	Pendekanti, R., et al.	607	5	08/07/1998
	US-6,088,618	07/11/2000	Kerver, H. B.	607	30	07/07/1998
	US-6,096,064	08/01/2000	Routh, A. G.	607	9	09/19/1997
	US-6,122,545	09/19/2000	Struble, C. L., et al.	607	9	04/28/1998
	US-6,128,529	10/03/2000	Elser, James	607	4	01/29/1997
	US-6,129,745	10/10/2000	Sun, W., et al.	607	27	10/23/1998
	US-6,151,524	11/21/2000	Krig, David B., et al.	607	14	08/18/1999
	US-6,223,072	04/24/2001	Mika, Yuval, et al.	600	510	06/08/1999
	US-6,249,699	06/19/2001	Kim, J.	607	4	09/03/1998
	US-6,256,534	07/03/2001	Dahl, R.	607	5	08/11/1998
	US-6,263,242	07/01/2001	Mika, Yuval, et al.	607	9	03/25/1999
	US-6,266,554	07/24/2001	Hsu, William, et al.	600	515	02/12/1999
	US-6,272,380	08/07/2001	Warman, E. N., et al.	607	5	08/19/1999
	US-6,317,632	11/13/2001	Krig, D. B., et al.	607	14	10/11/2000
	US-6,353,759	03/05/2002	Hartley, Jesse W., et al.	607	9	10/20/2000
	US-6,353,761	05/05/2002	Conley, Vickie, et al.	607	28	08/20/1999
	US-6,411,848	06/25/2002	Kramer, Andrew P., et al.	607	9	04/18/2001
	US-6,424,865	07/23/2002	Ding, Jiang	607	9	07/13/2000
	US-6,438,410	08/20/2002	Hsu, William, et al.	600	516	05/03/2001
	US-6,501,987	12/31/2002	Lovett, Eric G., et al.	607	9	05/26/2000
	US-6,501,988	12/31/2002	Kramer, A. P., et al.	607	9	12/26/2000
	US-6,512,951	01/28/2003	Marcovecchio, A. F., et al.	607	5	09/14/2000
	US-Re 30,387	08/26/1980	Denniston III, Rollin H., et al.	128	419	05/01/1978
	US-Re 36,765	07/04/2000	Mehra, R.	607	4	04/01/1997
	US-Re 38,119	05/20/2003	Mower, Morton M.	607	9	01/23/1989

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
	EP-0360412	03/28/1990	Haluska, E. A.	A61N	1/365	
	EP-0401962	12/12/1990	Pless, B. D., et al.	A61N	1/368	
	EP-0597459	05/18/1994	Akhtar, M.	A61N	1/39	
	EP-0617980	10/05/1994	Murphy, A. J., et al.	A61N	1/368	
	EP-0748638	12/18/1996	Duncan, J. L.	A61N	1/368	
	WO-00/71200	11/30/2000	Krig, D. B., et al.	A61N	1/362	
	WO-00/71203	11/30/2000	Chen, V. T., et al.	A61N	1/39	
	WO-0071202	11/30/2000	Kramer, A. P., et al.	A61N	1/362	
	WO-95/09029	04/06/1995	Weinberg, Lisa P., et al.	A61N		

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

PE JC81
OCT 16 2003
7 & 19

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number 09/316515

Filing Date May 21, 1999

First Named Inventor Krig, David

Group Art Unit 3762

Examiner Name Evanisko, George

RECEIVED

OCT 20 2003

TECHNOLOGY CENTER R3700

Sheet 4 of 5

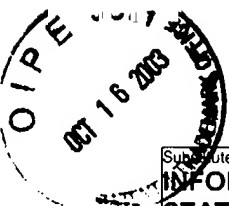
Attorney Docket No: 279.112US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	"French CNH Equipment Approvals", <u>Clinica</u> , 417, p. 9, (September 5, 1990), 3 pages	
	2	"Pacemaker System Guide for PULSAR MAX II; Multiprogrammable Pacemakers", Product brochure published by Guidant Corporation, (April 18, 1999), pp. 6 - 48 and 6 - 4	
	3	"Pacemaker System Guide for PULSAR MAX II; Multiprogrammable Pacemakers", Product brochure published by Guidant Corporation, (1999), pg 6-39 - 6-51	
	4	"Rate-Adaptive Devices Impact Pacemaker Market", <u>Clinica</u> , 467, p. 16, (September 11, 1991), 6 pages	
	5	"Vitatron Medical Harmony Automatic Dual Chamber Pacemaker Product Information and Programming Guide", Product Brochure published by Vitatron Medical, (Date Unknown), 22 pgs	
	6	BLOMMAERT, D. , et al., "Effective Prevention of Atrial Fibrillation by Continuous Atrial Overdrive Pacing After Coronary Artery Bypass Surgery", <u>JACC</u> , Vol. 35, No. 6, (May 2000), pp. 1411- 1415	
	7	BUHR, TRINA A., et al., "Novel Pacemaker Algorithm Diminishes Short-Coupled Ventricular Beats In Atrial Fibrillation", <u>PACE</u> , Vol. 24, Part II, (April 2001), 729	
	8	CAMPBELL, R. M., et al., "Atrial Overdrive Pacing for Conversion of Atrial Flutter in Children", <u>Pediatrics</u> , Vol. 75, No. 4, (April 1985), pp. 730 - 736	
	9	FROMER, M. , et al., "Algorithm for the Prevention of Ventricular Tachycardia Onset: The Prevent Study", <u>The American Journal of Cardiology</u> , 83 (5B), (Mar. 11, 1999), pp. 45D-47D	
	10	GARRIGUE, S. , et al., "Prevention of Atrial Arrhythmias during DDD Pacing by Atrial Overdrive", <u>PACE</u> , Vol. 21, (September 1998), pp. 1751 - 1759	
	11	HEUER, H. , et al., "Dynamische Zweikammer-Overdrive-Stimulation mit einem implantierbaren Schrittmachersystem als neue Methode zur Beendigung Langsamer ventrikularer Tachykardien", <u>Z Kardiol</u> , 75, Includes English translation (5 pgs.), (1986), pp. 673 - 675	
	12	JENKINS, et al., "Diagnosis of Atrial Fibrillation Using Electrogram from Chronic Leads: Evaluation of Computer Algorithm", <u>PACE</u> , 11, (1988), pp. 622-631	
	13	JUNG, J. , et al., "Discrimination of Sinus Rhythm, Atrial Flutter, and Atrial Fibrillation Using Bipolar Endocardial Signals", <u>Journal of Cardiovascular Electrophysiology</u> , 9 (7), (July 1998), pp. 689-695	
	14	LAU, CHU-PAK , et al., "Efficacy of Ventricular Rate Stabilization by Right Ventricular Pacing During Atrial Fibrillation", <u>PACE</u> , Vol. 21, (March 1998), 542-548	
	15	MORRIS, et al., "Intracardiac Electrogram Transformation: Morphometric Implications for Implantable Devices", <u>Journal of Electrocardiology</u> , 29 Supplement, (1996), pp. 124-129	
		MOWER, MORTON , U.S. Patent Office Patent Application Information	

EXAMINER

DATE CONSIDERED



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	09/316515
Filing Date	May 21, 1999
First Named Inventor	Krig, David
Group Art Unit	3762
Examiner Name	Evanisko, George

Sheet 5 of 5

Attorney Docket No: 279.112US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Retrieval (PAIR) search results for U.S. Patent Application Serial No. 10/214,474, filed on 8/8/02, entitled "METHOD AND APPARATUS FOR TREATING HEMODYNAMIC DISFUNCTION", 3	
		MURGATROYD, F. D., et al., "A New Pacing Algorithm for Overdrive Suppression of Atrial Fibrillation", <u>Pace</u> , Vol. 17., (November 1994, Part), pp. 1966 - 1973	
		SCHULLER, et al., "Far Field R-Wave Sensing - An Old Problem Repeating", <u>PACE</u> , 19, Part II, NASPE Abstract No. 264, (1996), p. 631	
		SEIM, G. , et al., "Classification of Atrial Flutter and Atrial Fibrillation Using an Atrial Dispersion Index (ADI)", <u>Guidant CRM Therapy Research Peer Review Report Revision 2.0</u> , (Jan. 6, 1999), 27 p.	
		STEPHANY, et al., "Real-Time Estimation of Magnitude-Square Coherence for Use in Implantable Devices", <u>IEEE Computers in Cardiology</u> , (1992), pp. 375-378	
		SUTTON, R. , "Pacing in Atrial Arrhythmias", <u>PACE</u> , Vol. 13, (December 1990, Part), pp. 1823 - 1827	
		SWIRYN, S. , et al., "Detection of Atrial Fibrillation by Pacemakers and Antiarrhythmic Devices", <u>Nonpharmacological Management of Atrial Fibrillation</u> , Chapter 21, Futura Publishing Co, Inc. Armonk, NY, (1997), pp. 309-318	
		WITTKAMPF, FRED H., et al., "Effect of Right Ventricular Pacing on Ventricular Rhythm During Atrial Fibrillation", <u>JACC</u> , Vol. 11, No. 3, (March 1988), 539-545	
		ZHU, D. W., "Electrophysiology, Pacing and Arrhythmia", <u>Clin. Cardiol.</u> , Vol. 19, (September 1996), pp. 737 - 742	

RE
OCT 20 2003
FBI CENTER 83/100

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached



FILE
3100

**REQUEST
FOR
CONTINUED EXAMINATION (RCE)
TRANSMITTAL**

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000,
provides for continued examination of an utility or plant
application
filed on or after June 8, 1995.
See The American Inventors Protection Act of 1999 (AIPA).

Application Number	09/316515
Filing Date	May 21, 1999
First Named Inventor	David B. Krig
Group Art Unit	3762
Examiner Name	George R. Evanisko
Attorney Docket Number	279.112US1
Customer No.	21186
Confirmation No.	7896

This is a Request for Continued Examination (RCE) under 37 CFR § 1.114 of the above-identified application entitled METHOD AND APPARATUS FOR TREATING IRREGULAR VENTRICULAR CONTRACTIONS SUCH AS DURING ATRIAL ARRHYTHMIA.

Submission required under 37 C.F.R. § 1.114

1. ☐ Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on .
2. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on .
3. ☐ An Amendment Under 37 CFR § 1.116 (pages) is enclosed.
4. ☐ A new power of attorney (pages) is enclosed.
5. ☒ An Information Disclosure Statement is enclosed (1 page).
a. 5 Forms 1449
b. 132 Copies of IDS Citations
6. ☒ A check in the amount of \$750.00 is attached to pay the RCE filing fee required under C.F.R. § 1.17(e).
7. ☒ **The Commissioner is hereby authorized to credit overpayments or charge any fees set forth in 37 CFR §§ 1.16 through 1.18 to Deposit Account No. 19-0743.**
8. ☐ A petition for extension of time in the prior application (pages) is enclosed along with a check in the amount of to pay the extension fee.
9. ☒ A Communication Concerning Co-Pending Applications (2 pgs.).

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

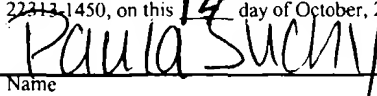
Customer Number: 21186

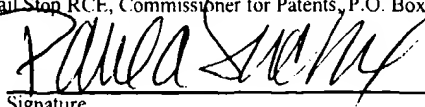
By: 

Atty: Suneel Arora

Reg. No. 42,267

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Attn-Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19 day of October, 2003.


Name


Signature